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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/772,049
Filing Date: February 04, 2004
Appellant(s): THAGARD ET AL.

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Agnes Juang, Ph.D.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8-20-07 appealing from the Office action
mailed 2-5-07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|-----------|--------------|---------|
| 4,225,678 | ROY | 9-1980 |
| 5,965,626 | TZENG ET AL. | 10-1999 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roy (4,225,678), alone, or in view of Tzeng et al.(5,965,626).

Roy discloses process for preparing asphaltic foams prepared by preparing molten asphalt and combining it with urethane forming reactants, blowing agent, surfactants, catalysts, and other materials at index values meeting those as claimed (see the entire document).

Roy differs from appellants' claims in that the order of mixing the asphalt component is not so specified as to require addition to the isocyanate component first. However, Roy (see column 3 lines 1-9) specifies adding the molten asphalt component to the reactive and non-reactive components so as to enable forming a polymeric product. Accordingly, it would have been obvious for one having ordinary skill in the art to have added the asphaltic component of Roy to any of the components disclosed first during the processing operations for the purpose of providing the asphaltic component within the polymeric foam forming materials with the expectation of success in order to arrive at the processes of appellants' claims in the absence of a showing of new or

unexpected results. Additionally, M.P.E.P. 2144.04 IV. C. recites that it has been held that selection of any order of mixing ingredients is *prima facie* obvious (see also *In re Gibson*, 39 F.2d 975, USPQ 230 (CCPA 1930)).

Further, arrangement of the materials such that administration of separated materials using multiple conventional mixing heads disclosed by Roy (see column 7 and example 1, as well as, the entire document) rather than mixing before or during passage through the mixhead would have been an obvious process manipulation within the disclosure of Roy for the purpose of achieving adequate mixing of materials with the expectation of success in order to arrive at the processes of appellants' claims in the absence of a showing of new or unexpected results.

Roy differs from appellants' claims relating to molded part forming recitations, as set forth in claims 11-24 of appellants' invention, in that it does not recite particulars as to forming molded parts from their preparations. However, Tzeng et al. discloses operations for forming a roofing tile or ridge cap wherein a conveyor belt is provided, a granule layer is applied to said belt, a mold comprising a boundary area is then provided with top side open, the molding area is filled with asphaltic foam forming material, the mold area is then covered with a top mold portion, and the materials are cured to form the desired parts. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the processing operations of Tzeng et al. in employment of the materials of Roy for the purpose of making useable roofing products from the processes of Roy so as to arrive at the processes of appellants' claims with the expectation of success in the absence of a showing of new or unexpected results.

(10) Response to Argument

Appellants' arguments have been considered. However, rejection is maintained.

It is held and maintained that it is within the purview of the ordinary practitioner having the teachings of Roy before them (see, particularly, column 4 lines 58-64) to add the asphalt component to any of the other ingredients prior to final work-up, including the isocyanate component. It is held and maintained modifying the process within the teachings of Roy in the manner identified in the rejection above would have arrived at the intermediates as defined by appellants' claims, and patentable distinction based on the formation of the intermediate mixtures as claimed is maintained to be not evident.

Examiner maintains that the rejection above is proper in its assertion that modification in the manner of combining and mixing the materials for reaction and work-up within the teachings of Roy in order to arrive at the mixing arrangements of appellants' claims would have been within the skill of the ordinary practitioner in the art. Roy provides for mixing of its materials for purposes of providing adequate reaction, work-up, and inclusion and entrainment of additives and assistants through the employment of pre-mixing and mixing heads. The employment and modification of the mixing means provided for by Roy for the purpose of providing expedient mixing is held and maintained to be an operation well within the skill of the ordinary practitioner in the art absent a commensurate in scope showing of criticality associated with the mixing arrangements set forth by appellants' claims. Appellants' current evidence and showings of record have not established criticality associated with the mixing arrangements of their claims for the invention of their claims to a degree sufficient to

overcome the instant rejection. Further, as to the duplication of mixing heads, it is noted that it has been held by the court that the mere duplication of parts has no patentable significance unless a new or unexpected result is produced. (See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), as well as, M.P.E.P. 2144.04 VI. B.). Additionally, appellants have not established distinction between the "impingement dispensing heads" of their claims and the "mixing heads" of Roy. "Impingement dispensing heads" do not have a meaning readily known to the ordinary practitioner to be different and distinct from the "mixing heads" of the Roy, and such a distinction has not been factually established in the evidence of record. Furthermore, it is maintained that column 7 and Example 1 demonstrate employment of conventional mix heads within the processing operations of Roy's disclosure to a degree that employment of impingement mixheads are readily conceived and within the purview of the ordinary practitioner in the art from what is taught by Roy.

As to appellants' showings of results, it is held that fact based showings of new or unexpected results attributable to the addition of the asphalt component to the isocyanate reactant side which are commensurate in scope with the scope of the claims as they stand have not been demonstrated, and clear and convincing, commensurate in scope, showings of new or unexpected results attributable to the multiple impingement mixhead dispensing operations as claimed have not been shown.

Results Must be Unexpected:

Unexpected properties must be more significant than expected properties to

rebut a *prima facie* case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Claims Must be Commensurate With Showings:

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of *prima facie* obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemkin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Appellants' showing, including the affidavit evidence, is not commensurate in scope with the claims, and is, therefore, not persuasive of patentability for the claims as they currently stand. Appellants' showing is very limited in its representation of the materials encompassed by the scope of appellants' claims. Further, it is not clearly and

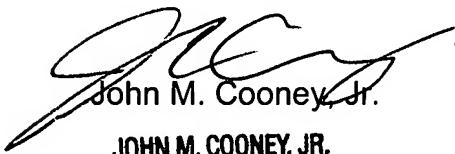
convincingly established that the allegedly new or unexpected behaviors discussed in appellants' arguments and evidence of record are associated with process conditions of appellants' claims rather than other factors such as the particularly selected reactant, assistant, and additive mixtures of their showings. The insufficiencies of appellants' showings are significant because, as a result, appellants' showings and other evidence fail to provide the required showing of new or unexpected results that are commensurate in scope with the claims, and they fail to clearly and convincingly establish new or unexpected results that are attributable to the indicated differences in the claims.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



John M. Cooney, Jr.

JOHN M. COONEY, JR.

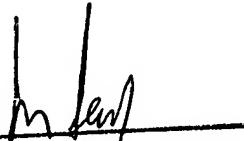
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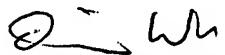
Conferees:

James Seidleck

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D. Wu

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